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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/553,331

Applicant(s)

CHAMBERS ET AL.

Examiner

HUY Q. PHAN

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 03/12/07 and 01/09/06 have been placed in record and considered by the examiner.

Claim Objections

2. Claims 6, 14 and 19 are objected to because of the following informalities:

Claim 6, the first introduction of claimed limitation "the source" should be changed to - a source- -.

Claim 14, the first introduction of claimed limitation "the first of the regions" should be changed to - a first of the regions- -.

Claim 19, the first introduction of claimed limitation "the source" should be changed to - a source- -.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

I) Claim 14 is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*,

409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions (*In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008)) indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing.

Applicant claims a method comprising steps of determining, issuing and transferring being of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine.

While the instant claim recites a series of steps or acts to be performed, the claim neither transforms underlying subject matter nor is positively tied to another statutory category that accomplishes the claimed method steps, and therefore does not qualify as a statutory process.

Since, the dependent claims 15-23, 28 and 29 are depended directly or indirectly on the rejected independent claim 14; they are also rejected under 35 U.S.C. 101.

II) Claims 28 and 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 28 recites limitation “computer software” which is considered as an abstract idea, because the computer software is not physical “things” and/or are not “acts” being preformed; thus, “computer software” is non-statutory subject matter.

Claim 29 recites limitation "a computer readable medium" which can be considered as a signal medium for containing, storing, communicating, propagating or transporting the computer software; and the applicant's specification does not specifically disclose the claimed limitation "a computer readable medium" excluding the signal medium. Since, a signal medium (a carrier wave signal) has no physical structure, it does not itself perform any useful, concrete and tangible result; thus, when "computer readable medium" is interpreted as a carrier wave signal, it is non-statutory subject matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12, 14-22, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by An (US 2004/0203832).

Regarding claim 1, An discloses the a system for transferring a resource within an area having a plurality of regions ("borrowing call coverage area" and "lending call coverage area" see [0004]) the system comprising:

determining means operable to determine whether any one or more of the regions requires an amount of the resource ("experiences service demands in excess of its capacity" see [0004]);

requesting means operable to issue a request to at least one of the regions for the amount of the resource ("can send a borrowing request to a neighboring cell" see [0004]); and

transferring means operable to transfer the resource from the at least one of the regions to the any one or more of the regions ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004] or "transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]).

Regarding claim 2, An discloses the system as claimed in claim 1, wherein the determining means is operable to determine whether any one or more of the regions requires the amount of the resource by determining whether a supply of the resource is adequate for any one or more of the regions ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004]).

Regarding claim 3, An discloses the system as claimed in claim 1, wherein the determining means is operable to determine whether any one or more of the regions

requires the amount of the resource ("experiences service demands in excess of its capacity" see [0004]) by determining whether a source ("can send a borrowing request to a neighboring cell" see [0004]) from which the supply of the resource is obtained is operational ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004]).

Regarding claim 4, An discloses the system as claimed in claim 2, wherein the determining means is operable to determine whether the supply of the resource is adequate ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004]) by determining whether a demand for the resource is likely to exceed a maximum amount which the supply of the resource can provide ("experiences service demands in excess of its capacity" see [0004]).

Regarding claim 5, An discloses the system as claimed in claim 3, wherein the determining means is operable to determining whether the source is operational by monitoring a status of the source ("checking resources available for lending by the neighboring cells" see [0005]).

Regarding claim 6, An discloses the system as claimed in claim 4, wherein the determining means determines whether the demand exceeds the maximum amount by

monitoring an output of the source ("neighboring cell as a potential lending cell, checking resources available for lending by the neighboring cells, selecting particular base stations in the neighboring cells that can lend resources" see [0005]).

Regarding claim 7, An discloses the system as claimed in claim 6, wherein the determining means comprises an electronic monitoring device which is capable of collecting information about the status and the output of the source ("checking resources available for lending by the neighboring cells" see [0005]), the monitoring device being capable of processing the information in order to determine whether the demand exceeds the maximum amount and the status of the source ("selecting particular base stations in the neighboring cells that can lend resources" see [0005]).

Regarding claim 8, An discloses the system as claimed in claim 7, wherein the requesting means comprises a plurality of interconnected devices each of which is associated with a respective one of the regions ("borrowing call coverage area" and "lending call coverage area" see [0004]), each of the devices being capable of issuing the request to any other devices which are connected thereto, thereby effecting issue of the request to the at least one of the regions ("can send a borrowing request to a neighboring cell" see [0004]).

Regarding claim 9, An discloses the system as claimed in claim 8, wherein each of the devices is such that upon receiving the request ("contacting one or more

neighboring cell as a potential lending cell, checking resources available for lending by the neighboring cells, selecting particular base stations in the neighboring cells that can lend resources" see [0005]) they determine whether the respective one of the regions is capable of providing the amount of the resource ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004]).

Regarding claim 10, An discloses the system as claimed in claim 8, wherein each of the devices is capable of issuing an indication that the respective one of the regions is capable of providing the amount of the resource ("contacting one or more neighboring cell as a potential lending cell, checking resources available for lending by the neighboring cells, selecting particular base stations in the neighboring cells that can lend resources" see [0005]).

Regarding claim 11, An discloses the system as claimed in claim 10, wherein each of the devices is capable of determining whether the respective one of the regions has a surplus amount of the resource, to thereby effect determining of whether the respective one of the regions is capable of providing the amount of the resource ("contacting one or more neighboring cell as a potential lending cell, checking resources available for lending by the neighboring cells, selecting particular base stations in the neighboring cells that can lend resources" see [0005]).

Regarding claim 12, An discloses the system as claimed in claim 11, wherein each of the devices is capable of determining whether a demand for the resource in the respective one of the regions is likely to exceed a maximum amount which the supply of the resource can provide to the respective one of the regions, to thereby effect determination of whether the respective one of the regions has the surplus amount of the resource ("contacting one or more neighboring cell as a potential lending cell, checking resources available for lending by the neighboring cells, selecting particular base stations in the neighboring cells that can lend resources" see [0005]).

Regarding claim 14, An discloses a method for transferring a resource within an area having a plurality of regions, the method comprising the steps:

determining whether any one or more of the regions requires an amount of the resource ("experiences service demands in excess of its capacity" see [0004]);

issuing a request to at least one of the regions for the amount of the resource ("can send a borrowing request to a neighboring cell" see [0004]); and

transferring the resource from the at least one of the regions to the any one or more of the regions any one or more of the regions to the first of the regions ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004] or "transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing

cell" see [0005]).

Regarding claim 15, An discloses the method as claimed in claim 14, wherein determining whether the any one or more of the regions requires the amount of the resource ("experiences service demands in excess of its capacity" see [0004]) comprises determining whether a supply of the resource is adequate for the any one or more of the regions ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004] or "transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]).

Regarding claim 16, An discloses the method as claimed in claim 15, wherein determining whether the any one or more of the regions requires the amount of the resource ("experiences service demands in excess of its capacity" see [0004]) comprises determining whether a source ("can send a borrowing request to a neighboring cell" see [0004]) from which the supply of the resource is obtained is operational ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004] or "transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]).

Regarding claim 17, An discloses the method as claimed in claim 15, wherein determining whether the supply of the resource is adequate comprises determining whether a demand for the resource is likely to exceed a maximum amount which the supply of the resource can provide ("experiences service demands in excess of its capacity" see [0004]).

Regarding claim 18, An discloses the method as claimed in claim 16, wherein determining whether the source is operational comprises monitoring a status of the source ("checking resources available for lending by the neighboring cells" see [0005]).

Regarding claim 19, An discloses the method as claimed in claim 17, wherein determining whether the demand exceeds the maximum amount ("experiences service demands in excess of its capacity" see [0004]) comprises monitoring an output of the source ("checking resources available for lending by the neighboring cells" see [0005]).

Regarding claim 20, An discloses the method as claimed in claim 19, wherein determining whether the source is operational and/or whether the demand exceeds the maximum amount ("experiences service demands in excess of its capacity" see [0004]) comprises collecting information about the status and the output of the source, and processing the information in order to determine whether the demand exceeds the maximum amount and the status of the source ("checking resources available for

lending by the neighboring cells" see [0005]).

Regarding claim 21, An discloses the method as claimed in claim 14, wherein issuing the request comprises determining whether the respective one of the regions is capable of providing the amount of the resource ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004]).

Regarding claim 22, An discloses the method as claimed in claim 14, wherein issuing the request comprises issuing an indication that the respective one of the regions is capable of providing the amount of the resource ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004] or "transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]).

Regarding claim 24 , An discloses a decentralised resource network, the network comprising:

a plurality of geographically dispersed sub-networks ("borrowing call coverage area" and "lending call coverage area" see [0004]) each of which comprises a generator

capable of generating a resource and a local distribution system arranged to distribute the resource to users;

a generator control system operable to: identify a first of the sub-networks ("borrowing call coverage area" see [0004]) that that is not capable of providing an amount of the resource required by the users ("experiences service demands in excess of its capacity" see [0004]); and change an operational status of the generator of a second of the sub-networks ("lending call coverage area" see [0004]) so as to produce the amount of the resource ("The lending cell can permit use of certain of its capacity by the borrowing cell and in such manner the borrowing cell can gather sufficient additional resources to satisfy the increased service demand" see [0004]); and a backbone distribution system arranged to transfer the amount of the resource from the first of the sub-networks to the second of the sub-networks ("transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]).

Regarding claim 25, An discloses the decentralised resource network as claimed in claim 24, wherein the generator control system is operable to select the second of the sub-networks based on a proximity of the second of the sub-networks to the first of the sub-networks ("can send a borrowing request to a neighboring cell" see [0004]).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I) Claims 13, 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over An in view of Maxemchuk (US 6,411,810).

Regarding claim 13, An discloses the system as claimed in claim 12, wherein the transferring means comprises a plurality of links which can be used to transfer the resource from the at least one of the regions to the any one or more of the regions ("transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]). But An does not particularly suggest that wherein the transferring means comprises a plurality of links which are arranged in a mesh topology. However, Maxemchuk teaches wherein the transferring means comprises a plurality of links which are arranged in a mesh topology (col. 3, lines 63-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of An as taught by Maxemchuk for purpose of enhancing the reliability of the communication system as suggested by Maxemchuk ("This type of network can be made as reliable as needed" see col. 3, lines 63-67); thus increasing the quality of service.

Regarding claim 23, An discloses the method as claimed in claim 14, wherein using the links to transfer the resource from the at least one of the regions to the any one or more of the regions ("transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]). But An does not particularly suggest arranging a plurality of links into a mesh topology. However, Maxemchuk teaches arranging a plurality of links into a mesh topology (col. 3, lines 63-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of An as taught by Maxemchuk for purpose of enhancing the reliability of the communication system as suggested by Maxemchuk ("This type of network can be made as reliable as needed" see col. 3, lines 63-67); thus increasing the quality of service.

Regarding claim 27, An discloses the decentralised resource network as claimed in claim 24, except wherein the backbone distribution system comprises a plurality of resource transmission links arranged in a mesh topology. However, Maxemchuk teaches wherein a plurality of resource transmission links arranged in a mesh topology (col. 3, lines 63-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of An as taught by Maxemchuk for purpose of enhancing the reliability of the communication system as suggested by Maxemchuk ("This type of network can be made as reliable as needed" see col. 3, lines 63-67); thus increasing the quality of service.

II) Claims 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over An in view of Williams (US 6,970,709).

Regarding claim 26, An discloses the decentralised resource network as claimed in claim 24, wherein the generator control system comprises:

a local control system ("borrowing call coverage area" and "lending call coverage area" see [0004]); and

a communication means ("transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]). But An does not particularly teach a global controller, wherein the local control system is operable to collect status information about a status of the generator in each of the sub-networks and use the communication means to transfer the information to the global controller, the global controller being operable to process the status information in order to identify the first of the sub-networks and send status control data to the local control system via the communication means, the local control system being operable to process the status control data in order to effect the change in the operational status of the generator in the second of the sub-networks. However, Williams teaches a global controller (fig. 1, BSC 44 and "The purpose of the BSC is to control each of the BTS units within a region" see col. 1, lines 48-49), wherein the local control system is operable to collect status information about a status of the generator in each of the sub-networks ("monitors the status of the BBS 18" see col. 6, lines 27-33) and use the communication means to transfer the information to the global controller ("all of the BTSs controlled by the BSC" see col. 1, line 63), the global controller being operable to

process the status information in order to identify the first of the sub-networks and send status control data to the local control system via the communication means, the local control system being operable to process the status control data in order to effect the change in the operational status of the generator in the second of the sub-networks ("hands off calls between the BBS 18 and other base stations" see col. 6, lines 27-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of An as taught by Williams for purpose of enhancing the reliability of the communication system as suggested by Williams ("This arrangement permits a mobile user or subscriber to move from cell to cell and still maintain service. This architecture is also particularly advantageous as it makes possible reuse of carrier frequencies from one cell to another." see col. 2, lines 1-3); thus increasing the quality of service.

Regarding claim 28, An discloses a base station for carrying out the method as claimed in any one of claims 14 to 23 ("transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]) and does not particularly disclose computer software which, when executed by a computing system, allows the computing system to carry out the method as claimed in any one of claims 14 to 23. However, Williams teaches a base station being software programmable ("software used in the DSP modules 40a-40n" see col. 8, lines 13-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of An as taught by Williams for

purpose of incorporating the computing system into the communicating system in order to adapt the best technology provided by the computing system; thus increasing the quality of service.

Regarding claim 29, An discloses a base station ("transferring resources that are identified as available for lending from their resident base station to the base station of the borrowing cell" see [0005]) and does not particularly disclose a computer readable medium comprising the software as claimed in claim 28. However, Williams teaches the base station including a computer readable medium comprising the software ("software used in the DSP modules 40a-40n" see col. 8, lines 13-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of An as taught by Williams for purpose of incorporating the computing system into the communicating system in order to adapt the best technology provided by the computing system; thus increasing the quality of service.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Padgett discloses "allowing capacity to be borrowed from one cell and applied to another nearby cell" (see specification).

b) Hamalainen discloses that "It is possible to provide a system where adjacent cells or cells located near to each other could "lend" unused capacity for a loaded cell" (see specification).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy Q Phan whose telephone number is 571-272-7924. The examiner can normally be reached on 8AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Huy Q Phan/
Examiner, Art Unit 2617
Date : 02/07/2009